

### ABSTRACT OF THE DISCLOSURE

The invention generally provides a method for preparing a surface for electrochemical deposition comprising forming a high conductance barrier layer on the surface and depositing a seed layer over the high conductance barrier layer. Another aspect of the invention provides a method for filling a structure on a substrate, comprising depositing a high conductance barrier layer on one or more surfaces of the structure, depositing a seed layer over the barrier layer, and electrochemically depositing a metal to fill the structure.

10016255-124001